Conference Paper

A New Exclusive Breastfeeding Booklet to Improve Self-Efficacy

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Abstract

Breastfeeding self-efficacy is defined as the mother's belief in their ability to breastfeed the baby. Health education is important to increase the mother's confidence. The purpose of this study was to test the effect of an exclusive breastfeeding booklet to increase breastfeeding self-efficacy in prenatal mothers until the postnatal period. This study was conducted using a quasi-experimental design. The results showed that providing a booklet for mothers increased self-efficacy towards exclusive breastfeeding with the mean after intervention was 60.97, $p<0.005$. Our study suggests health care professionals provide health education and motivate mothers to improve their confidence with regards to breastfeeding for at least six months.

Keywords: *Breastfeeding self-efficacy*, exclusive breastfeeding, health education

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1. Introduction

A high maternal and infant mortality rate indicates a poor of Indonesian health status. In 2012, the maternal mortality rate was 359 per 100.000 live births and infant mortality rate was 35 per 100 live birth. A study conducted by Endriana and colleagues (2013) reported that infant mortality rate in 2010 was very high, about 82.5% with normal weight (2500-4000 gram). A higher rate of infant mortality rate may cause by several factors, including child health, environmental factors and nutritional factors [1]. However, nutritional factors actually can solved and prevented in advance by providing exclusive breastfeeding. Breastfeeding exclusively from birth to 6 months and continued for up to 2 years as recommended by the World Health Organization (WHO) is known to reduce the incidence of malnutrition in infants and toddlers [2]. The first thousand days of baby live is an important period, which is the golden period for children to grow and develop optimally.

According to [3] study, breastfeeding not only benefit for infant health, but also for mother and country. Benefits for the mother such as helps to lose weight, helps the

uterus return to normal size faster, prevent bleeding, prevent breast cancer and ovarian cancer, and is a natural method of contraception. Benefits for the country including obtain qualified human resources quality, savings of foreign exchange for the purchase of formula milk, and save subsidies for sick children and drugs. Indonesia Breeding Association (AIMI) in 2007 have been make a lot of effort through various innovative and inspirational activities regarding paradigm shift of young Indonesian families that breastfeeding is the right of every mother, breastfeeding meets the best nutritional needs for babies. Considering an important benefit, in 2012, government issued a regulation for exclusive Breastfeeding.

National survey of demographic and health reported a decline of exclusive breastfeeding rate from 40.2% in 1997 to 39.5% in 2003 and 32% in 2007. Decreased exclusive breastfeeding caused by various factors including mother, babies and the environment [4]. The maternal factors for not breastfeeding include: experience, socioeconomic status, smoking habit, mother's attitudes, and support from health care providers, spouses, and mother's self-confidence to breastfeed [3]. Baby factors such as cleft lip, gastrointestinal disorders. Environmental factors such as culture, health personnel and hospital policy [5].

Breastfeeding is a multidimensional behavior that is influenced by social and demographic, biological and psychological interactions during pre and postnatal. Previous study conducted to 50 mother found that the success of exclusive breastfeeding was mother's belief and perception about infant satisfaction while breastfeeding, support of husbands and parents, the provision of infant formula milk health, early food companion in aged less than 6 months and the use of pacifiers [6]. Early delivery of food companion is the strongest determinant of negative factors toward breastfeeding, whereas strong maternal beliefs and perceptions about breastfeeding are the strongest factors. One aspect that influences the success breastfeeding is self-efficacy. The importance of maternal breastfeeding self-efficacy have been reported in several studies: For example, [7] reported that 27% of mothers with low breastfeeding self-efficacy tent to faster for stop breastfeeding in the first week of postpartum. Longitudinal studies of 64 mothers reported that low self-esteem were associate with quick to stop breastfeeding [8]. Parental behavior in exclusive breastfeeding influenced by socio-cultural factors, awareness of the importance of breastfeeding.

Support for the success of breastfeeding requires four interrelated pillars of regulation and legislation, commitment of government programs, enhancing community and family support and improving the ability and understanding of health workers to breastfeeding. Providing health education information using booklet as media in hospitals and mothers

home can help on succession exclusive breastfeeding program by applying the 10 steps of breastfeeding. Particularly, explaining to all pregnant women about the benefits of breastfeeding and starting from birth until the age of 2 years, helping mothers start breastfeeding their babies 60 minutes after giving birth or initiation of early breastfeeding done in the delivery room, to help mothers how to breastfeed correctly, carry out treatment, breastfeeding counseling for nurses, and not to give formula milk. Previous study showed a very meaningful relationship between the use of module / booklet with mother knowledge about postpartum lactation management and effectiveness of module usage in increasing mother knowledge about lactation management after delivery by 75% [9]. Modules or booklet can be one media to provide knowledge about lactation management during pregnancy to postpartum and is very useful for mothers to be able to exclusively breastfeed to babies for 6 months. Therefore, the purpose of this study was to develop a novel module of breastfeeding and test the effect of the module on breastfeeding self-efficacy.

2. Methods

This study was conducted using a queasy experimental design with pre and posttest in the sample group. The intervention conducted during the prenatal and postnatal mother before and after health counseling using the current exclusive breastfeeding booklet. Breastfeeding self-efficacy scale in short form (BSES-SF) was used in this study, which is consists of 14 points with 5- Likert scale ranging from 1 to 5 [10]. The time of study started from October, 2017 to January, 2018. Data collection process was done after obtained ethical approval (0008/UN2.F1/ETIK/2018) and permission from research from health department and study hospital in East Jakarta (242/Af.1/31.75/-1.862.9/2018).

3. Results

A total of 36 mothers agreed to join in this study. Majority of them were at age 21-29 years old, multipara (75.8%), junior high school (55.55%), 32-36 week of gestational age (69.44%), had experience of breastfeeding (69.44%), housewife (66.66.%), spontaneous for delivery history (77.8%),and 100% no smoking (Table 1).

Table 2 shows correlation between demographic and health information with breastfeeding self-efficacy. We did not found any significant correlation between age, delivery history, education level, gestational age, breastfeeding experience, working status, smoking, and delivery history with breastfeeding self-efficacy ($p>0.05$).

On average, breastfeeding self-efficacy before intervention was 53.57 (SD=8.38) and after intervention increased to 60.97 (SD=7.63). The paired t test showed a significant increased the mean of breastfeeding self-efficacy. It means that breastfeeding self-efficacy improve after given health education using booklet.

Table 1: Demographic and health related information (n=36)

Variable	n	%
Age (years)		
< 20	11	30.6
21-29	16	44.4
≥ 30	9	25.7
Parity		
Primipara	9	25
Multipara	27	75.8
Education level		
Elementary school	4	11.42
Junior high school	8	22.88
Junior high school	20	55.55
College/university	4	11.42
Gestational age (week)		
32-36	25	69.44
38-40	11	30.56
Breastfeeding experience		
Yes	25	69.44
No	11	30.56
Working status		
Housewife	24	66.66
Working	12	33.33
Smoking		
No	36	100
Yes	0	0
Delivery history		
Never	5	13.88
Spontaneous	28	77.8
SC	3	8.33

4. Discussion

The results of this study confirm the previous studies which suggest that the mother's factors for not feeding her baby included experience, socioeconomic status, smoking habits, mother's attitudes, support from health care providers, spouses, and mother's

Table 2: Correlation between demographic and health information with breastfeeding self-efficacy (n=36)

Variable	r	*p-value*
Age	0.196	0.259
Delivery history	-0.044	0.802
Education level	0.077	0.662
Gestational age	0.196	0.259
Breastfeeding experience	-0.25	0.148
Working status	0.077	0.162
Smoking	0.045	0.867
Delivery history	0.044	0.802

Table 3: Mean different of breastfeeding self-efficacy before and after health education with booklet

Breastfeeding self-efficacy	n	Mean	SD	*p-value*
Before	36	53.57	8.38	0-000
After	36	60.97	7.63	

self-confidence to breastfeed [3]. Age is a contributing factor to all the reproductive outcomes in pregnant women. The mothers aged of 21-30 years categorized into young maternal and healthy reproduction while over 35 years of age including elderly mothers and unhealthy for the reproduction. However, our study not find significant relationship between age and breastfeeding self-efficacy. This was consistent with previous study stated that the sociodemographic factor had a significant negative association with exclusive breastfeeding including age and employment status [6]. Older age tend to less provide an exclusive breastfeeding. Although this result differs from some studies on exclusive breastfeeding in Australia, Canada and China

The status of parity is also a contributing factor to mother's reproductive outcome. Statistical test results on parity status variables no significant relationship with self-efficacy breastfeeding. This is supported by [11] study that the number of parities and the type of labor was not a significant difference, meaning that the number of children does not affect the mother in breastfeed the baby but in fact the previous breastfeeding experience will have an effect on the mother's decision to be more confident in breastfeeding the baby. Mothers with multiparas have experience in breastfeed their babies and previous information about the benefits for mother and baby. Previous study found that unemployed mother had high perception and motivation, and had confidence in breastfeeding. However, another study reported that a person who works will have a positive perception of an action will thus be motivated to have self-efficacy in breastfeeding. Working moms do not have enough time to breastfeed their children during work so choose to wean their children faster and provide additional food faster

[12]. Similarly [13] suggest that working moms have a faster time to breastfeed because mothers do not have enough time to breastfeed during work.

Mothers with high education tend to have good confidence in breastfeeding compared with mothers with low education. In contrast, study reported that decreased breastfeeding is caused by the increasing level of maternal education, the factors that play a role in the adoption of modern thinking in caring for babies, and education representing socioeconomic status which are associated with the ease of advertising and the ability to buy formula [14]. According to [15] that education level is one of the decisive factors to behavioral change, where the higher level of education means that it has experienced a more frequent learning process. The above results show that mothers with higher education tend to have the knowledge to have confidence in breastfeeding well and can lower misconceptions, improve cooperatively on exclusive breastfeeding quality.

Although we did not found significant correlation between smoking breastfeeding self-efficacy, mothers who failed to breastfeed for 6 months were influenced by internal factors (mother's work, education, age, breastfeeding mindset, parity, mother's condition for 0-6 months, ANC frequency, knowledge of breast milk and nutritional status/BMI) and external factors (type of labor, early recognition, labor help, husband role and income level) [16]. Increased levels of women's participation in the labor force and emancipation in all areas of work and in the needs of society leads to a decrease in the willingness of breastfeeding and the duration of breastfeeding. Imitate friends, neighbors or prominent people who provide bottled milk. The perception of a excessive lifestyle brings in effect the willingness of breastfeeding. Even the view for the certain circle that bottle milk is perfect for babies and best. This is influenced by lifestyles that always want to imitate others, or ask for prestige. Feel out of date if breastfeeding for the baby. Modern culture and societal behavior that mimics Western countries urges mothers to immediately wean their children and choose artificial milk as a way out

There was no significant relationship between breastfeeding experience and self-efficacy of breastfeeding mothers, this was not in line with the results of [17] that previous experience on breastfeeding is the most influential factor. Breastfeeding mothers at RSIB who had previous experiences were 11 times as likely to have high breastfeeding self-efficacy scores compared with no previous breastfeeding experience. Likewise the previous chance of 14 times having high breastfeeding self-efficacy scores compared to not having previous breastfeeding experience is important to consider. Mothers with previous successful breast-feeding experience are more likely to breastfeed further, and may be an example for other breastfeeding mothers [18]. The importance of

mothers seeing other mothers successfully breastfeeding, becomes a separate support for first-time breastfeeding mothers, thus positively affecting breastfeeding outcomes. Increased lactation intake can ensure that mothers get the source and support to plan breastfeeding and find the benefits of breastfeeding early.

The results of this study are not in line with the [19] study of the self-efficacy rate for breastfeeding in primigravid mothers, who received an average BSE of 55.075. These results indicate that the level of self-efficacy for breastfeeding of primigravid mothers in the study is good. Certainly the primigravida mother, the first pregnant mother, will first experience breast-feeding, and has not had any previous breastfeeding experience. In contrast, most breastfeeding mothers are mothers with previous breastfeeding experience, thus dominating the results obtained. Factors obtained in this study is not necessarily the same as the research on breastfeeding mothers who have not had previous breastfeeding experience. No significant correlation between labor type and self-efficacy. This was contrary to the results of [20], which states that the type of delivery with cesarean section will affect the initial breastfeeding, especially at the time of IMD, this requires the commitment of the helpers and mothers themselves, and also viewed from the physical condition of the mother. For the mother who gave birth by surgery that is cesarean section is compared to spontaneous mother. The type of cesarean section delivery uses longer or more difficult spinal anesthesia in breastfeeding the baby early because the mother must recover from awareness in advance to breastfeed, but also because of fatigue, confusion and pain.

In general, post-caesarean mothers experience pain. New pain is felt after the effects of anesthetic drugs disappear after 24 hours. The result of [21] study showed that post-cesarean mother with epidural anesthesia obtained maternal data showed mild pain intensity at rest during room after four hours post operation by using numeric scale (0-10) during pain scale assessment so mother will experience difficulties with breastfeeding rather than spontaneous delivery. Mothers who give birth by caesarean section have many discomforts due to surgery because of changes in the uterus, pelvis, urinary tract, gastrointestinal tract, respiratory tract and moreover the problem of surgical wounds [22] so it takes a recovery period for it the role of nurses is very important in providing health promotion.

There was significant mean difference of self-efficacy before and after health education through booklet. The results of [23] stated that self-efficacy is related to the interest of post-partum mothers and the support of health personnel in conducting nursing intervention in this case health education through booklet media. The study by [24]

suggests that knowledge or attitudes can help reduce misconceptions, improve cooperative and quality care in breastfeeding mothers. The study, according to [25], states that all prenatal mothers given education and support programs in a clinic, obtained an average increase in knowledge for breastfeeding preparation because it is motivated. [26] that nurse need to support to pregnant women by health education and information through booklet media. Mothers are willing to breastfeed their babies exclusively, as well as rewarding mothers for breastfeeding their babies exclusively in accordance with health officer directives. One source of self-efficacy information that is verbal persuasion or verbal influences such as persuasion from influential parties such as health workers can contribute significantly to improving self-efficacy [27]. [28] about the factors that influence the implementation of lactation management by nurses. This is in line with the research of [29] which states that the self-efficacy of breastfeeding mothers has an effect on exclusive breastfeeding and commit implementing early breastfeeding initiation. [30] reported that the important factor that causes the occurrence of exclusive breastfeeding failure is because the mother is not facilitated to do IMD. In addition, immediate initiation of breastfeeding (IMD), such as immediately putting a mother-to-toe baby (skin to skin contac), can increase to continue breastfeeding after hospital [31]. Immediate postnatal breastfeeding may increase breastfeeding duration and improve exclusive breastfeeding [31].

Public health service located in Jatinegara district does not provide formula milk to newborns. Newborns who are only given breast milk since at the public health service have a greater chance to succeed exclusive breastfeeding. There was a link between support of health workers through the provision of information with breastfeeding behavior, breastfeeding mothers who were given information had 1.5 times better for breastfeeding than not given information [28] reported that. Furthermore, maternal decisions for breastfeeding are exclusively influenced by the advice of health professionals so that there is no misinformation [28] Research by [24] suggests that knowledge or attitudes can help reduce misconceptions, improve cooperative and quality care in postpartum mothers.

5. Conclusion

The provision of health education through the novel booklet of exclusive breastfeeding has an impact on the achievement of breastfeeding success through the improvement of mother's confidence to manyusui her baby, although in character instrument states there is no relationship in exclusive breastfeeding. This research shows that, lactating

mothers at puskesmas of jatinegara sub-district have motivation to give breastfeeding exclusively after being given education.

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Conflict of Interest

The authors have no conflict of interest to declare.

References

[1] Ministry of Welfare. (2012). Angka Kematian Bayi (AKB) Per 1000 Kelahiran Hidup Menurut Provinsi, 2012 dan 2017. Retrieved from https://www.bps.go.id/dynamictable/2019/10/06/1688/angka-kematian-bayi-akb-per-1000-kelahiran-hidup-menurut-provinsi-2012-dan-2017.html.

[2] UNICEF. (2002). *Breastfeeding*. Retrieved from https://www.unicef.org/reports/breastfeeding.

[3] Entwistle, F., Kendall, S. and Mea, M. (2010). Breastfeeding Support – The Importance of Self-Efficacy for Low –Income Women. *Maternal & Child Nutrition*, issue 6, pp. 228-242.

[4] Ministry of Health. (2011). *Banyak Sekali Manfaat ASI Bagi Bayi Dan Ibu*. Retrieved from https://www.kemkes.go.id/article/view/1450/banyak-sekali-manfaat-asi-bagi-bayi-dan-ibu--.html.

[5] Sirkorski, J., *et al*. (2003). *Support for Breastfeeding Mothers. Cochrane Review*. Oxford: Update Sopware.

[6] Kurniawan, B. (2013). Determinan keberhasilan pemberian air susu ibu eksklusif. *Jurnal Kedokteran Brawijaya*, vol. 27, issue 4, pp. 236-240.

[7] Blyth, R., *et al*. (2002). Effect of Maternal Confidence on Breastfeeding Duration: An Application of Breastfeeding Self-Efficacy Theory. *Birth*, vol. 29, issue 4, pp. 278-284.

[8] Ertem, I. O., Votto, N. and Leventhal, J. M. (2001). The Timing and Predictors of the Early Termination of Breastfeeding. *Pediatrics*, vol. 107, issue 3, pp. 543-548.

[9] Damayanti, D. (2013). *Asyiknya minum ASI*. Gramedia Pustaka Utama.

[10] Dennis, C. L. and Faux, S. (1999) Development and Psychometric Testing of the Breastfeeding Self-Efficacy Scale. *Research in Nursing & Health*, issue 22, pp. 399-409.

[11] Pranoto, Y. K. S. and Hong, J. (2018). Happiness from the Perspective of Mother and Children: Indonesian Setting. *Early Child Development and Care*. DOI: 10.1080/03004430.2018.1461094

[12] Singh, N. S. and Singh, N. S. (2011). Determinants of Duration of Breastfeeding Amongst Women in Manipur. *Bangladesh Journal of Medical Science*, vol. 10, issue 4, pp. 235-239.

[13] Haroun, H. M., Mahfouz, M. S. and Ibrahim, B. Y. (2008). Breast Feeding Indicators in Sudan: A Case Study of Wad Medani town. *Sudanese J Public Health*, vol. 3, issue 2, pp. 81-90.

[14] Akter, S. and Rahman, M. M. (2010). Duration of Breastfeeding and its Correlates in Bangladesh. *Journal of health, Population, and Nutrition*, vol. 28, issue 6, p. 595.

[15] Pongprajuc, R., *et al*. (2010). The Development of Womenûs Health Services for Breast Healthcare. *Journal of Nursing Science and Health*, vol. 33, issue 4, pp. 19-27.

[16] Hikmawati, I. (2008) Faktor - Faktor Risiko Kegagalan Pemberian Asi Selama Dua Bulan Studi Kasus pada bayi umur 3-6 bulan di Kabupaten Banyumas. (Master's thesis, program Pascasarjana Universitas Diponegoro, 2008).

[17] Aji, R. F. and Suryaningrat, W. M. (2013). *Comparative Study of Mothers' Breastfeeding Self-Efficacy in A Baby-Friendly Hospital and Non Baby-Friendly Hospital and Identification on Influencing Factors*.

[18] Spaulding, D. M. (2001). Breastfeeding Self-Efficacy in Woman of African Descent.

[19] Wardani, M. A. (2012). *Gambaran Tingkat Self Efficacy Untuk Menyusui Pada Ibu Primigravida*. Depok. Universitas Indonesia.

[20] McDonald, S. W., *et al*. (2013). A Comparison between Late Preterm and Term Infants on Breastfeeding and Maternal Mental Health. *Maternal and Child Health Journal*, vol. 17, issue 8, pp. 1468-1477.

[21] Ranta, P. O., *et al*. (2006). Incisional and Epidural Analgesia after Caesarean Delivery: A Prospective, Placebo-Controlled, Randomised Clinical Study. *International Journal of Obstetric Anesthesia*, vol. 15, issue 3, pp. 189-194.

[22] Hanke, A. A., Elsner, O. and Görlinger, K. (2010). Spinal Anaesthesia and Caesarean Section in a Patient with Hypofibrinogenaemia and Factor XIII Deficiency. *Anaesthesia*, vol. 65, issue 6, pp. 641-645.

[23] Helmiye, A., Kucuk, M. and Duzgun, G. (2010). The Effect of Pascanatal Mobilization Education/Support Offered after Delivery: A Randomized Trial. *Journal of Maternal-Fetal and Neonatal Medicine,* vol. 24, issue 2, pp. 354-361.

[24] Birgit, R., *et al*. (2004). Do Maternity Care Provider Groups have Different Attitudes Towards Birt. *Jounal of Obstetrics and Gynaecology*, issue 111, pp. 1388-1393.

[25] Fraser, J. A., *et al*. (2007). Caring, Chaos and the Vulnerable Family: Experiences in Caring for Newborns of Drug-Dependent Parents. *International Journal of Nursing Studies*, vol. 44, issue 8, pp. 1363-1370.

[26] Perry, S. E., *et al*. (2017). *Maternal Child Nursing Care-E-Book*. Mosby.

[27] Dennis, C. L. (2003). The Breastfeeding Self-Efficacy Scale: Psychometric Assessment of the Short Form. *JOGNN*, issue 6, pp. 734-744.

[28] Khayati, N., Rachmawati, I. N. and Nasution, Y. (2017, February). Pelaksanaan Manajemen Laktasi oleh Perawat di Rumah Sakit dan Faktor yang Mempengaruhinya. Presented at *Prosiding Seminar Nasional & Internasional*.

[29] Bosnjak, A. P., *et al*. (2009). Influence of Sociodemographic and Psychosocial Characteristics on Breastfeeding Duration of Mothers Attending Breastfeeding Support Groups. *Journal of Perinatal Medicine*, vol. 37, issue 2, pp. 185-192.

[30] Fikawati, S. and Syafiq, A. (2012). Status Gizi Ibu Dan Persepsi Ketidakcukupan Air Susu Ibu. *Kesmas: National Public Health Journal*, vol. 6, issue 6, pp. 249-254.

[31] Weddig, J. (2011). Improving Breastfeeding Initiation Practices of Registered Nurses Through Online Theory-Based Education. (Thesis, 2011).